

# United States Patent and Trademark Office



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/724,510 11/26/2003		Terry L. Cooke	HE0209	1833	
21495 75	90 06/30/2005		EXAM	EXAMINER	
	ABLE SYSTEMS LLC	LEPISTO,	LEPISTO, RYAN A		
P O BOX 489 HICKORY, NC 28603			ART UNIT	PAPER NUMBER	
			2883		
			DATE MAILED: 06/30/2005		

Please find below and/or attached an Office communication concerning this application or proceeding.

	· · · · · · · · · · · · · · · · · · ·						
,		A	pplication No.	Applicant(s)			
			10/724,510	COOKE ET AL.			
Office	Action Summary	E	xaminer	Art Unit			
			yan Lepisto	2883			
The MAILI Period for Reply	NG DATE of this commu	nication appeal	rs on the cover sheet with the c	orrespondence add	lress		
THE MAILING D.  - Extensions of time mafter SIX (6) MONTH:  - If the period for reply - If NO period for reply - Failure to reply within Any reply received by	ATE OF THIS COMMUN by be available under the provision of from the mailing date of this com specified above is less than thirty ( is specified above, the maximum is the set or extended period for repl	IICATION. s of 37 CFR 1.136(a munication. 30) days, a reply with statutory period will a y will, by statute, cau	S SET TO EXPIRE 3 MONTH(s). In no event, however, may a reply be time thin the statutory minimum of thirty (30) days apply and will expire SIX (6) MONTHS from use the application to become ABANDONED to this communication, even if timely filed.	ely filed will be considered timely. the mailing date of this con 0 (35 U.S.C. § 133).			
Status							
1) Responsive	e to communication(s) fil	ed on 20 Mav	2005.		•		
2a) ☐ This action	- · ·		tion is non-final.				
·	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.						
	·	iloo ulluol Ex p	santo quayro, 1000 o.b. 11, 40	0.0,210.			
Disposition of Clain							
4a) Of the a 5)⊠ Claim(s) <u>4-</u> 6)⊠ Claim(s) <u>1-</u> 7)□ Claim(s) _	Claim(s) 1-21 is/are pending in the application.  4a) Of the above claim(s) is/are withdrawn from consideration.  Claim(s) 4-7 and 9-21 is/are allowed.  Claim(s) 1-3 and 8 is/are rejected.  Claim(s) is/are objected to.  Claim(s) are subject to restriction and/or election requirement.						
Application Papers							
10)⊠ The drawing Applicant ma Replacemer	ay not request that any object that any object that any object that any object that are used to be a second to	<u>' 2003</u> is/are: a ection to the dra g the correction	a)⊠ accepted or b)⊡ objected wing(s) be held in abeyance. See is required if the drawing(s) is objoinner. Note the attached Office	e 37 CFR 1.85(a). ected to. See 37 CFI	R 1.121(d).		
Priority under 35 U.	S.C. § 119						
a)  All b)  □ 1.  □ Certi 2.  □ Certi 3.  □ Copi appli	Some * c) None of: fied copies of the priority fied copies of the priority es of the certified copies cation from the Internati	y documents h y documents h s of the priority onal Bureau (F	ave been received in Application documents have been received	on No ed in this National S	Stage		
Attachment(s)							
1) Notice of Reference			4) Interview Summary				
	ion's Patent Drawing Review ( ure Statement(s) (PTO-1449 o ate		Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:		-152)		

## Claim Rejections - 35 USC § 103

**DETAILED ACTION** 

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 1. Claims 1-3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giebel et al (US 5,863,083) (Giebel), and further in view of Heagy et al (US 2002/0033554 A1) (Heagy).

Giebel teaches a pulling grip (Figures 1-7) for installing a pre-connectorized fiber optic cable (22) having a terminated end (part of 46) with fiber optic connectors (20) mounted upon the ends of respective optical fibers (18), the pulling grip comprising: a furcation plug (46) attached to the terminated end of a fiber optic cable (part of 46); a pulling grip housing (6) for receiving and temporarily storing the furcation plug (46), the fiber optic connectors (20) and the ends of the respective optical fibers (18); and a pulling grip sleeve (2) comprising a bag (2) that is adapted to be opened to position the pulling grip sleeve(2) over the pulling grip housing (6) and the furcation plug (46) and to be closed around the pulling grip housing (6) and the furcation plug (46) to install the fiber optic cable (22); wherein the pulling grip sleeve (2) is removable from the fiber optic cable (22) once the fiber optic cable (22) is installed (column 7 lines 7-10), wherein the pulling grip housing (6) has a first housing portion (14) that defines an elongate

Art Unit: 2883

channel (24) for routing the optical fibers (18) and a second housing portion (16) that defines a plurality of pockets (42) that each store a plurality of the fiber optic connectors (20).

Giebel also teaches a pulling grip (Figures 1-7) for installing a pre-connectorized fiber optic cable (22) having a terminated end with fiber optic connectors (20) mounted upon the ends of respective optical fibers (18), the pulling grip comprising: a furcation plug (46) attached to the terminated end of a fiber optic cable (22), a pulling grip housing (6) for receiving and temporarily encasing the fiber optic connectors (20), the optical fibers (18) and at least a portion of the furcation plug (46), the pulling grip housing (6) having a first housing portion (14) defining an elongate channel (24) for routing the optical fibers (18) and a second housing portion (16) defining a plurality of pockets (42), each pocket (42) for storing a plurality of the fiber optic connectors (20); and a pulling grip sleeve (2) adapted to be positioned over the pulling grip housing (6) and at least a portion of the furcation plug (46), wherein the pulling grip housing (6) is formed by a molded clamshell defining a hinge line (44) that separates the first housing portion (14) and the second housing portion (16) and wherein the first housing portion (14) and the second housing portion (16) are folded about the hinge line (44) to temporarily encase the fiber optic connectors (20), the optical fibers (18) and at least a portion the furcation plug (46), wherein one of the first housing portion (14) and the second housing portion (16) has a lengthwise groove (40) and the other comprises a lengthwise tongue (38) that engages the groove (40) to thereby secure the first housing portion (14) and the second housing portion (16) together in a closed configuration, and Application/Control Number: 10/724,510

Art Unit: 2883

wherein the first housing portion 914) comprises a continuous first flange (34) and a plurality of discontinuous second flanges (32) and wherein the optical fibers (18) are routed lengthwise underneath the first flange (34) and between a pair of adjacent second flanges (34) into one of the pockets (42) (column 5 lines 39-50).

Giebel does not teach expressly a longitudinally zipper openable bag or a specific teaching in the disclosure of a means for integrating the furcation plug with conventional communications hardware.

Heagy teaches an apparatus for installing various linear materials or tubes or devices wherein a protective covering (Fig. 19) that has an eye that a line handle is tied to so the covering and the contents the covering is protecting can be pulled through spaces. The bag has an opening from the near the top to the bottom (longitudinally and lengthwise) that is closed or opened via a zipper (paragraph 0135).

Giebel and Heagy are analogous art because they are from the same field of endeavor, installing linear (tube like) (including cables or fibers, paragraph 0134) components through confined spaces using components to protect the linear structures.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a protective covering with the longitudinally and lengthwise zipper opening as taught by Heagy for the connector housing as taught by Giebel.

At the time of the invention, it would have also been obvious to a person of ordinary skill in the art that the furcation plug section (46) taught by Giebel has a shape that allows it to be integrated with conventional communications hardware. For

Application/Control Number: 10/724,510

Art Unit: 2883

example, the plug shape allows the plug to be attached via a clamp and screw to a mounting bracket or via plastic wire ties.

The motivation for doing so would have been to reduce or eliminate damage to the components the covering is protecting and to improve the ability to insert components into the cover before they are installed (Heagy, paragraph 0135).

### Allowable Subject Matter

#### 2. Claims 4-7 and 9-21 are allowed.

The following is an examiner's statement of reasons for allowance:

With regard to claims 4, 9-10 and 19: These claims are allowable over the prior art of record because the latter, either alone or in combination, does not disclose nor render obvious a pull grip housing with a plurality of pockets that each store a plurality of fiber optic connectors, the plurality of individual pockets connected by a flexible rod or a furcation plug with engaging grooves to restrain lengthwise movement and rotation of the plug relative the pull grip housing, in combination with the rest of the claimed limitations.

With regard to claims 5-7, 11-18 and 20-21: These claims are allowable over the prior art of record because they depend on allowable claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Application/Control Number: 10/724,510 Page 6

Art Unit: 2883

# Response to Arguments

3. Applicant's arguments with respect to claims 1-4 and 8 have been considered but are most in view of the new ground(s) of rejection.

4. Applicant's arguments, filed 20 May 2005, with respect to claim 10 have been fully considered and are persuasive. Giebel does not teach nor would it have been obvious to one of ordinary skill in the art to use a plurality of pockets that each holds a plurality of fiber optic connectors.

#### **Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan Lepisto whose telephone number is (571) 272-1946. The examiner can normally be reached on M-F 7:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Application/Control Number: 10/724,510

Art Unit: 2883

Page 7

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ryan Lepisto

Frank Font

Art Unit 2883

Supervisory Patent Examiner

hank I Fort

Date: 6/22/05

Technology Center 2800